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JOSEPH A. WILLIAMS, OF CLEVELAND, OHIO.

MAGNETO-ELECTRIC GENERATOR.

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To all whom it may concern:

Be it known that I, JOSEPH A. WILLIAMS, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Magneto-Electric Generators, of which the following is a full, clear, and exact description.

This invention relates particularly to those electric generators of the magneto type which are designed for use on automobiles as a part of the ignition system of the explosion-engines.

The object of this invention is to provide a magneto-electric generator which may be so adjusted as to be capable of being secured in a useful position in any automobile whatever may be the disposition and arrangement of the machinery thereof.

The invention consists in various combinations which include a magneto-electric generator, a device capable of being secured to the automobile-frame and of adjustably supporting the magneto-electric machine in a convenient position and of yieldingly holding it in operative relationship with a rotating part of the automobile mechanism by which the magneto-machine is to be driven, as hereinafter described, and definitely pointed out in the claims.

In the drawings, Figure 1 is a front elevation of a magneto-electric generator embodying the present invention. Fig. 2 is a vertical sectional view on the plane indicated by line 2 2 of Fig. 1. Fig. 3 is an end view thereof. Fig. 4 is a sectional plan view in the plane indicated by line 4 4 of Fig. 1.

The magneto-electric generator may be of any familiar type and of course includes a frame, such as A, to which the magnets are secured and in which the armature-shaft C is rotatably mounted. This frame, as shown, includes a base-plate *a* and two standards *a'*, which carry the bearings a^2 for the armature-shaft C. This frame may be of familiar construction, except that on the outer surface of each of the standards *a'* is an annular flange a^3, which is concentric with the armature-shaft and its bearing a^2. These annular flanges a^3 are embraced by the split rings *b*, which respectively form the upper parts of the standards B. The feet *b'* of these standards are fitted into grooves *d* in a base-plate D, which plate is adapted to be secured to brackets on an automobile-frame. The two grooves *d* are parallel, and the two standards B are capable of sliding in them, the feet *b'* being held therein by the overhanging gib-plate *d'*. The plate D and standards B B constitute a supplemental frame, in which the frame A is supported in the manner explained.

A friction driving-wheel *c* is secured to the end of the armature-shaft C, and this shaft may be driven through the frictional engagement of this wheel with some rotating wheel which forms a part of the automobile machinery—for example, the fly-wheel of the engine—or by a belt engaging with such rotating member. The movement of the standards B in the grooves *b* carries this wheel *c* toward or from that rotating member of the automobile machinery by which the wheel *c* is to be driven.

A spring-bar F may be secured in any appropriate manner to the two standards B. Preferably this spring is slotted, as at *ff*, and screws K passing through these slots screw into the standards B to secure the spring-bar thereto. The force tending to move both of the standards B in grooves *d* either forward or backward is to be applied through this spring F. The means shown for so doing consists of a screw G, which passes through a hole in the spring F and has a nut *g* on one side of said spring, substantially clamping the spring between it and the head of the screw. A nut H, having an annular groove *h*, is screwed onto this screw. A forked plate J, secured to the base-plate D, embraces this nut H in the groove *h*. It is therefore apparent that by turning this nut, which cannot move endwise, the screw is caused to either push or pull spring F, and thereby to move both standards B in the required direction and the required distance. There is another similar fork-plate J' secured to the opposite side of the base-plate D, and the spring-bar F may be secured to the opposite sides of the standards B B, the screw-holes for this purpose being indicated by dotted lines at f^2 in Fig. 3. If, for example, the magneto-electric machine were swung over to the right to the position indicated by dotted lines, it would be difficult to get at the adjusting-nut H. It is therefore an advantage to transfer the spring to the opposite sides of standards B B, because then the nut is more easily accessible, and since the standards may be moved in either direction by the mechanism shown they may be moved to the required position.

With the above-described construction it is evident that if the disposition of the auto-